KINDERGARTEN MESSENGER

AND

THE NEW EDUCATION.

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The New Education.

A MONTHLY JOURNAL FOR TEACHERS.

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OUR AIM.—The NEW EDUCATION is the mouth-piece of the AMERICAN FROEBEL UNION, to every member of which it is sent regularly. Being thus the official organ of the kindergarteners of this country, it is intended to give utterance to the best thoughts, record of the leading facts, and announcement of the most interesting events connected with this revolution in primary education. It is a journal for Parents as well as for Teachers; and for intelligent Public School Teachers generally, as well as for those who have been specially trained in the principles of Froebel. Aside from its discussion of methods of instruction, the attention it gives to Home-Culture and to Hygiene both at home and at school, should make it indispensable to all who have to do with the training of children.

The numbers for 1882 (Vol. VI) will contain *entire* Mr. Hailmann's new work called "PRIMARY HELPS," *with fourteen full-page illustrations.*

OUR TERMS.—The subscription to the NEW EDUCATION is One Dollar a year; to English subscribers, Five Shillings. Instead of making deductions or offering cheap premiums, we prefer to charge the full dollar for the paper and then make it worth the dollar to every subscriber. To encourage our friends to make extra effort, however, we offer six subscriptions for five dollars.

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WRITE CAREFULLY, DISTINCTLY, FULLY.—Our readers would hesitate to believe us if we should tell them how large a proportion of the letters we receive are imperfect, often failing to specify what is wanted, oftener failing to give the post-office address, sometimes even omitting the name of the writer. We deem it due to ourselves as well as to our customers to fill every order promptly and accurately. If our friends will be sure their orders are distinct, we can assure them there will be very few mistakes, and those few will be cheerfully rectified as soon as we learn of them.

MRS. ANNA B. OGDEN has assumed charge of a Kindergarten and Training School in Washington, formerly conducted by Miss Graves. She will be assisted in her work by her husband, who will spend the winter term with her training class. We are rejoiced to observe from the notices of Washington papers that this step has put an end to the unfortunate opposition on the part of Miss Graves to Mrs. Pollock, who has charge of the National Kindergarten and Training School in the same city. We may now indulge the hope that these enterprises will aid each other and will together advance the kindergarten interest in the great South. It appears that already the two rival societies have merged or are about to be merged into one, with Mrs. Pollock and Mrs. Ogden as its leaders.

WE publish in this number Miss Marwedel's paper, read at the Convention of Friends of Froebel at Detroit. Miss Marwedel gives great prominence in this paper to the use of the curved line in drawing, and justly censures the common practice of kindergartners of confining their attention to the straight lines. We cannot sympathize with her, however, when she claims for the paper the "recognition of a gap in Froebel's system." Froebel was fully aware of the importance of the curved line, and even of the fact that it should be used before the straight line. In a letter to one of his pupils written in 1852, he says concerning the subject of drawing: "Little of this can be done in the kindergarten, because the little fingers are still too weak. Stick-laying takes the place of drawing, and the making of *circles* with the slate-pencil of which the children are so fond; and this can be carried to the representation of simple forms of leaves and flowers," and then he instances a small, plain circle or ring, representing the sun or a hoop, a ball or a finger-ring; a clover leaf; a rose leaf; a five-petaled flower, and a sun-flower. Subsequently he insists again, however, that drawing proper should be deferred to the connecting-class. In another place he shows quite elaborately how the child through sketching and painting of all kinds of curvilinear representations in the sand or dust, or on a window-pane covered with a film of moisture, at last reaches drawing, as such,

of lines, and, he adds distinctly, "*of the curved line first and afterwards of the straight line.*"

Further on he says, of this first period in drawing: "These circles which it can draw now with tolerable accuracy will be to the child pictures of the moon, the sun, a disc, of an apple, a ball, a hoop, a ring, etc. It has seen the clover-leaf, with its three rounded leaflets, and the various five-petaled flowers in the field, in the meadow, and in the garden, and it represents them easily by connected circular lines;" and here he enumerates quite a list of suitable blossoms and leaves. He continues: "But it ventures even to represent animal life. It tries to draw the rabbit with its rounded forms, the mouse, the lamb, the pigeon, etc. This clear and distinct perception and representation of the curvilinear forms in the objects has been gained by the child in its play with its round play-things," referring to the ball and and the rings.

It is true that in earlier utterances on the subject (about 1826), connected with his "Menschenerziehung," he still adheres to the schoolish notions criticized by Miss Marwedel, and it seems that the great majority of his imitators have built their work on these utterances, so much so that our own demand published two years ago to re-instate the curved line in its rights, was condemned by many as heretical. To these Miss Marwedel's criticism justly applies, but not to the master.

Organization of Kindergarten Work.

(Concluded from last number.)

23. The Kindergarten is to be conducted according to Froebel's principles of education.

24. It should be reasonably adapted to local circumstances and needs.

25. The Kindergarten aims at the normal development of the physical, moral and intellectual powers of the child. For this purpose it uses,

a. Gymastics, songs and games;
b. Stories, conversations about objects and pictures;
c. Froebel's occupations and gifts;
d. Easy garden work.

26. In the use of these means of culture, the following principles must be seriously considered:

a. All routine work must be avoided;
b. All aimless playing and affected talk in the games, in the occupations and in the stories are to be shunned;
c. The occupations at the table are of less importance than the natural plays, gymnastic exercises, and especially intercourse with nature;
d. Moderation is needed in the use of the occupations, and caution in their selection;
e. All work endangering the child's health in any way should be wholly omitted;
f. The stories are to be taken largely from the life of children, the gymnastic exercises are to be carried out with precision, the games of imitation must be freed of all that lies beyond the children's scope;
g. In general, the Kindergarten should be an extended nursery, and all instruction of a schoolish character is to be strictly excluded.

27. The connection of the Kindergarten and the school is in the interest of both and should be earnestly sought.

28. The Kindergarten should be graded with the school, and should be in the same building.

29. The Kindergarten should be quite familiar with general pedagogics, with a knowledge of school organization, and prepared for elementary instruction.

30. The public school recognizes the educational principles of the Kindergarten and uses its methods also in its instruction. Especially the lower grades make use of a number of occupations in organic connection with other school studies. More particularly it pays proper attention to play and bodily development.

31. A Kindergarten should be connected with every normal school.

32. The female pupils of the upper grades should pass several hours each week in the Kindergarten and acquaint themselves with its method.

Childhood's Poetry and Study in the Forms of Nature.

BY MISS EMMA MARWEDEL.

Psychological knowledge of the earliest developments of the child is still in its extreme beginning. It has been observed that a few days in a child's life are sufficient for it to distinguish between approaching and leaving its cradle, and that a two months' old baby gave preference to certain tunes sung by its mother while

nursing it. Froebel claims the first development of the sense of taste in its earliest use, meanwhile the very early discrimination the baby makes between his mother, his father and his nurse, seems to prove that the sense for forms might rather be called a "sense of forms." Froebel at least calls it "instinct of forming or shaping," found in every human being. And there is seemingly nothing to prevent the acceptance of this theory. No human culture can be measured without considering the standard of its utilitarian and æsthetic production of forms, their characteristics, symmetry and size, keeping step with the general moral and mental development of man.

The sublime simplicity of the Greek, the lofty purity of their Philosophy, the harmonious culture of body and mind, created a world of individual thoughts and forms forever crystallized in the existing laws of the beautiful, and its identification with "the good." In acknowledging thereby an inheritance from the past, dating from the first point of human self-conception, we perceive, in fact, the sense of Form as one of the strongest in the young child.

And yet, of all matters important to the culture as well as to the welfare of man, not one has been left more to chance in our prevailing educational system than the training of the *intellect* as regards the understanding of the nature and condition of forms. How very few are able to use forms as a means of communicating ideas, or to give a description of objects by any other means than words, simply because we were never taught to see.

The impression is prevalent that the access to the domain of forms is restricted to a few persons of talent, or to the particularly gifted. The existence of this error cannot surprise one, since form in its natural direction and aggression as a manifestation of matter so easily recognized by sight and touch, has not been sufficiently subjected to a definite system of analysis. Schools of art refer less to geniuses than to those who concentrate their forces on the training of the mind, in consequence of which their power of execution overcomes, finally, all technical difficulties.

Froebel perceiving the peculiar instinct for shaping, or building, as the most individual characteristic of man and animal through millions of forms, has made the study of comprehension of form one of the most important educational features in his system.

Forms are there used in three distinct directions:

1. In teaching to see; that is, in leading to receive impressions and to give expressions analytically and descriptively of what exists.

2. In teaching to think, in leading to separate and combine,—comparing what exists.

3. In teaching to create individual thoughts through expressions and combinations of forms.

On this basis lies the common source from the use of daily handiwork to the highest artistic inspiration, and drawing has, therefore, lately been recognized as almost indispensable in our curriculum of instruction. Meanwhile its daily practice in the kindergarten shows most astonishing results. This is due to the fact that the analytical conception of form is developed before the executive powers of the child are used.

Only those familiar with Froebel's system are able to conceive the educational importance of this fact. But, after all, it cannot be ignored that the curved line conceptively, so predominantly introduced by the ball as the fundamental line of all life, stands in its practical relation positively at the end. Form is the earliest language spoken to the child, the strongest, the most instructive, because the most impressive to its senses. To withhold the writing—that is, the reproduction of this language which it reads,—is against all modern principles of pedagogy, especially those of Froebel.

Form is likewise the universal language of all creation. Like nature, its elements are few, diversity in combination creating the multiplicity of its manifestations.

Froebel illustrates this through its fundamental type, the sphere and cube connecting the two opposites by their mediating link, the cylinder.

On this earliest unconscious conception of the manifold law, bound in one fundamental law (which Froebel calls the connection of contrasts), leading the child to recognize unity and harmony in diversity, Froebel builds his whole system of education in developing through the simplest means a creative and conscious self-activity, producing original thoughts and original combinations of forms. Among the whole series of gifts used to this end in the kindergarten, the ball stands in the foreground.

But we have to confess that practice in the kindergarten in the use the ball in its high educational meaning, that is, in its philosophical connection with all life, symbolically, mathematically and analytically, is still far from perfection.

And who wonders? as the necessary underlying conception of the psychological and physiological development and need of the man in the child to compact sense by itself is nearly in its infancy.

Froebel would lead the child back to the idea in leading it to nature.

The kindergarten tries to accomplish this partly by a true conception of forms, presenting the language of all creation in the cast of symmetry and the beautiful. It opens the gates of life's highest treasures in opening to the child the book of nature.

The spiritual life in the child, thus once kindled, illuminates through its own power the whole universe. We all can tell of this spiritual conception of the child. It teaches and leads *us* to be children with the children.

Nature, preaching its great ode of forms, drapes even the stone in the dress of the beautiful. From the violet at our feet to the top of the mountain, in the clouds, and in the smile of the mother, we feel the power of the beautiful. And the child—it sees, also; it hears, also; it feels, also; but as nearer to its nature, stronger, purer, more poetical, more emphatical than we.

But the child wants more. Like the source from which it sprang, it wants to give outward expression of its inner sympathy with this beauty which it sees in its surroundings.

Look at its eager little hands. Just a little dot or a little ring, just large enough to be perceived by the big eyes of man, tells of the glowing happiness of earth's greatest artists. Do you not see it? It is a pond, full of fishes made of still smaller dots, and here on the side grows a rose-bush all in bloom, and there is a tree and a nest in it, and over all this stands the moon, and makes it look so beautiful. And all this glory grows out of a few visible circles on the slate. Rings!' the child calls them.

What has his little mind to do with the cold abstract combination of two or more straight lines?

It will use them in time. It shall use them.

"But pray, old man, let us first draw the lovely roses and daisies, and the swimming fishes, and the birds singing. Let us see once more these beautiful things, let us handle them, and then help us to make them. We want to make the apple and the peach because we love them. And then this funny red apple or beet, as they call it, with its tail growing deep in the ground. I know it is growing in the earth, because I saw earth on its tail myself. O let me handle it! then make it!—see, it looks like an apple, only a little different,—a little bit flatter on the top, and a little piece cut out on each side,—if it were not for this tail I should call it a red apple. And then we want to draw the round flowers, such as we brought Mary, when she was sick and put them in water. I found the caterpillars on them which she planted to have beautiful butterflies."

It is a great, great distance between the first divine sparks of the individual creative powers of the child and the weight of our stiff angular conception of it.

Do not receive this recognition of a gap in his system as a blame on Froebel. He placed the life-kindling ball in the hand of the mothers to be placed in those of the babies of six months. Our children using it are four, five, or six years old.

Why, then, exclude the ball, the most life-awakening gift, from its great educational developing influence involved in the analytically used reproduction of its form? Without this, the leading into nature will never be complete; creation and creator will never form a union with man.

Does it not then become our sacred duty in celebrating our leader's centennary, to consider the instinctive divine desire of the child to connect itself directly with the forms of nature leading to the reproduction of the nearest it sees, feels and loves, as a free impulse to be used in Froebel's educational developing spirit, that is from within to without?

We want to bind their heads and their hands in one till they have grown into the great unity of a harmoniously developed human being.

Therefore, as the curved line presents the line of all life and beauty, enabling the child to recognize in diversity, similarity, and in similarity, diversity, the unity of the universe, and the simplicity of its laws, let us lead the child to use its relation to all that exists, in order to create in the unity of right seeing, right doing, and right knowing, the poetry of childhood found in Nature's great alphabet of Form.

Plate X.

FROM MR. HAILMANN'S NEW BOOK, "PRIMARY HELPS."

Figures 1–21 of this plate offer material for a more systematic study of triangles and quadrilaterals. It is advisable to reserve these studies in close and exhaustive description and classification for more advanced children. Still, occasional simple exercises leading to these studies may be used advantageously even with very young children. This applies more particularly to the descriptions and comparisons which can be simpified very much. With more advanced children the work should often be reduced to writing. I append here, too, a few suggestive exercises.

a.) The pupil has laid figure 3 from dictation, and describes, in answer to appropriate questions or otherwise: This figure has three sides: it is a *triangle*. The horizontal side is five inches long; the slanting sides are each three inches long; the two slanting sides are equal: it is an *isosceles triangle*. The triangle has three angles. The two angles at the lower side (at the longest side, at the base) are acute angles; the angle at the top (opposite the base) is an obtuse angle. The triangle has two acute and one obtuse angles: it is an *obtuse angled triangle*. By its angles it is an obtuse angled triangle; by its sides it is an isosceles triangle: it is an *obtuse-angled isosceles triangle*. The two angles at the base of this isosceles triangle are equal.

b.) The pupils have laid figure 17, and describe as above: This figure has four sides: it is a *quadrilateral*. The upper and lower sides are in the same direction: they are *parallel*. The right and left sides are in different directions: they are *diverging*. The quadrilateral has one set of parallels: it is a *trapezoid*. The right and left sides of the trapezoid are equal. The lower parallel side is longer than the upper one. The angles at the longer parallel side are acute. The angles at the shorter parallel side are obtuse. The acute angles at the shorter parallel side are equal.

c.) During some subsequent exercises figure 16 has been laid, and the following conversation may take place, in which the teacher's words are quoted: This is a quadrilateral. "What makes it a quadrilateral?" It has four sides. "How many sets of parallels has it?" It has one set of parallel sides. "What kind of a quadrilateral is it?" It is a trapezoid. "What makes it a trapezoid?" It has one set of parallel sides. "What kind of angles has it?" It has two right angles at the bottom, one obtuse angle to the left above, and one acute angle to the right above.

d.) Suppose that the children are all more or less familiar with the different kinds of triangles. They have been furnished, too, a supply of sticks of different lengths. The teacher says: "I am thinking of a triangle that stands on a two-inch line stick at the bottom, and has two three-inch lines (sticks) at the sides."—Fig. 5. "Who has laid this triangle?" (All have laid it.) "What kind of a triangle is this by its sides?" "What makes it isosceles?" "What kind of a triangle is it by its angles?" "What makes it an acute-angled triangle?" "Now, lay an equilateral triangle." "What makes it equilateral?" "Lay an obtuse-angled scalene triangle with the obtuse angle to the left below."—Fig. 7.

e.) Similarly, if the children are quite familiar with the quadrilaterals, an exercise like the following is in place: Lay a quadrilateral with no parallel stick. What do you call it? Lay a trapezoid with two one-inch sticks and two three-inch sticks.—Fig. 19. Lay two two-inch sticks in the same horizontal straight line. From the left end upward lay a two-inch stick at a right angle. Now with three more two-inch sticks finish the quadrilateral.–Fig. 12. Which sides run in the same direction? What kind of a quadrilateral is it? What kind of angles has it? Change it into an oblique parallelogram.—Fig, 14. What is it now? Divide it into two lozenges with one stick, etc.

f.) Such exercises can be made still more instructive with yet more advanced pupils, if the latter are required to answer before laying the figure, and then verify the answer by subsequent work. Thus, e. g.: A quadrilateral; two sets of parallels; oblique angles; all sides equal: what is it?—Fig. 13. Lay the figure. Change it into a square.—Again, a quadrilateral; the upper and lower lines each two inches long; the right and left sides each four inches long; all angles right angles: what is it?—Fig. 11. Lay the figure. Change it into a trapezium, without moving the two sticks that form the right angle at the upper left corner.—Similar descriptive riddles may be put by the pupils to each other or to the teacher.

g.) The children have laid figures 1 and 2. They compare: The equilateral triangle has three sides, so has the isosceles triangle. In the equilateral triangle all

PLATE X

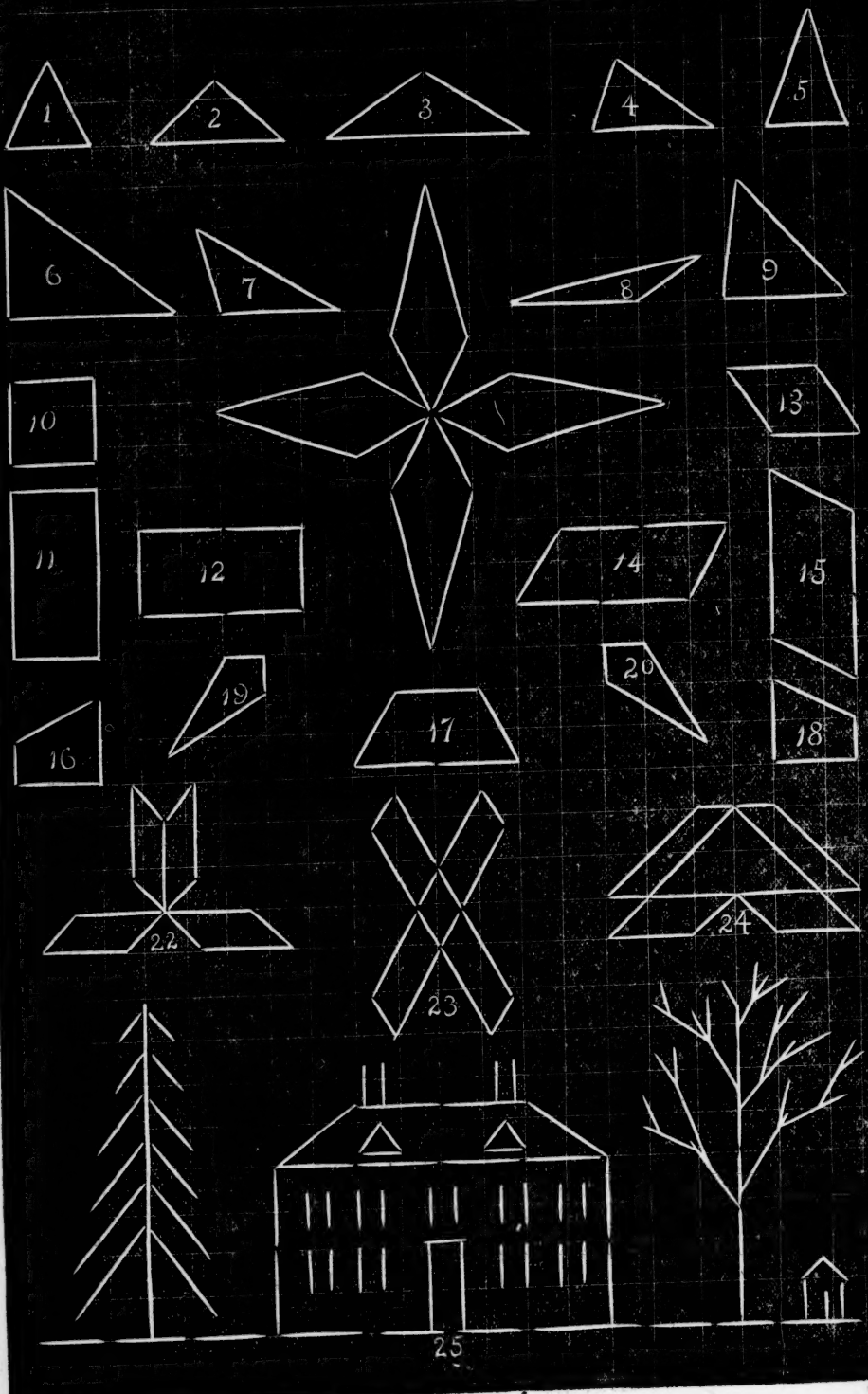
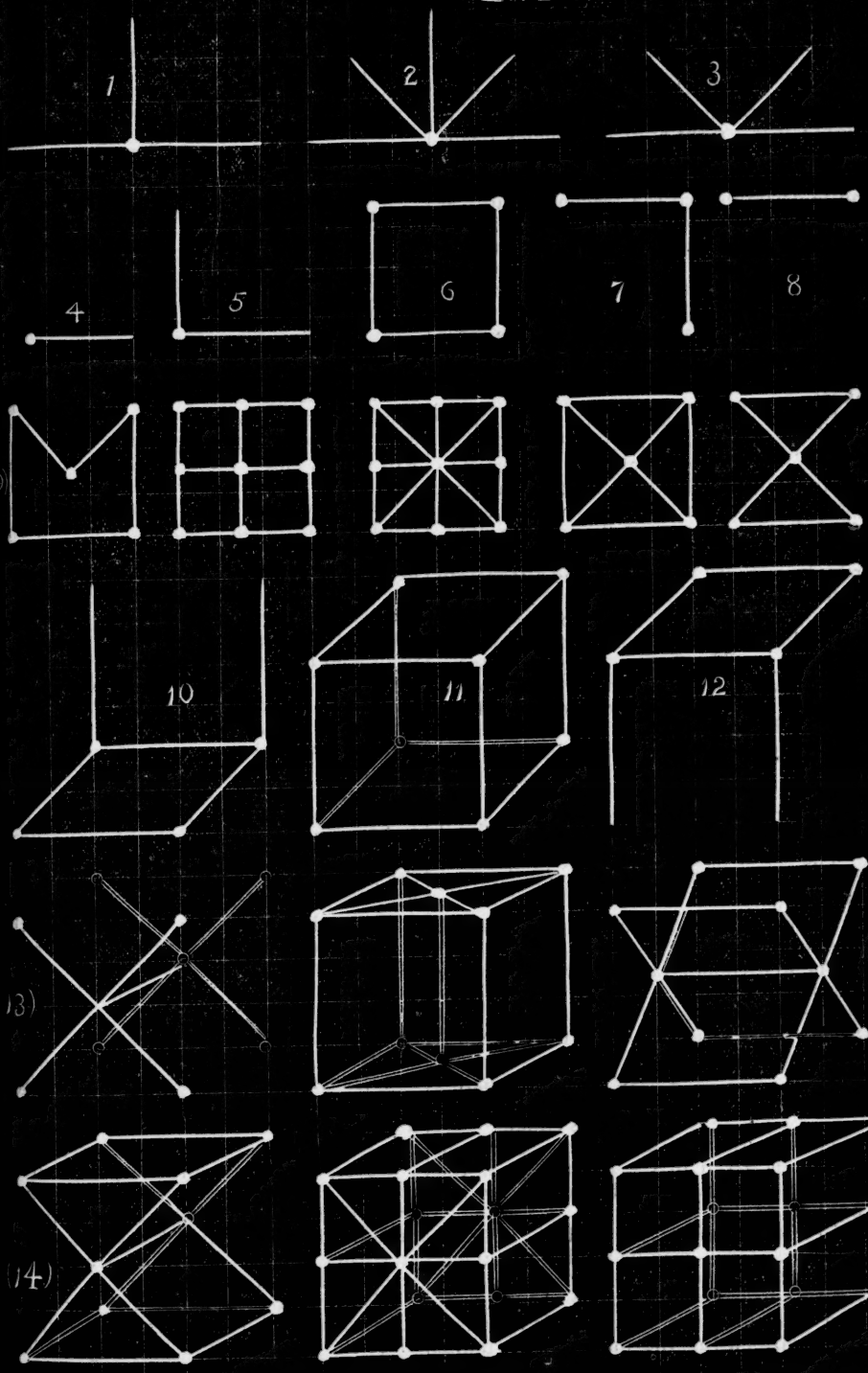


PLATE XI



sides are equal; in the isosceles triangle only two sides are equal. All the angles of the equilateral triangle are acute; it is an acute-angled triangle. In the isosceles triangles two angles are acute, and one is right; it is a right-angled isosceles triangle. Similarly all other figures may be compared in sets of twos or threes. It is quite desirable that the teacher should, at the outset, frequently engage in similar exercises himself. He may draw two figures on the board, and then compare them in a loud voice, slowly, carefully and deliberately pointing out the things of which he speaks. It is well, too, to reduce these comparisons to writing. The same remarks apply to the descriptions and classifications.

h.) The pupils have, from dictation or otherwise, laid a number of isosceles triangles *(*fig. 2, 3, 4, 5*)*, and are requested to arrange or classify them by their angles. They may find that they have four acute-angled, two obtuse-angled, and three right-angled isosceles triangles. This discovery may be reduced to writing, and alternately generalized in a schedule; thus:

Isosceles triangles may be { acute-angled. / obtuse-angled. / right-angled.

Again, they have laid or drawn a number of different parallelograms. They classify by the angles:

Parallelograms, by their angles are { right. / oblique.

They classify by the equality of the sides, having laid, perhaps, figures 10, 11, 12, 13, 14, and 15.

The *square* has all its sides equal.

The tall rectangle has only the opposite sides equal.

The broad rectangle has only the opposite sides equal.

The first rhomboid has only the opposite sides equal.

The rhombus has all sides equal.

The second rhomboid has only the opposite sides equal.

Parallelograms { have all sides equal. / have only the opposite sides equal.

Thus, in the course of time, even the schedules given in the beginning of the chapter *(*page 14*)* may be found by the pupils.

i.) Figures 21, 22, 23 and 24 indicate how these forms may be used for symmetrical arrangements.

j.) Figure 25 indicates that the occupation of stick-laying may be made very useful in procuring the outlines for simple free-hand drawings. The children will find much profit and pleasure in laying and afterwards drawing such sketches. This laying and drawing of sketches may also be made the subject of group-work.

Plate XI.

For this occupation the sticks are sharpened at both ends. Half a dozen of the older boys will take pleasure in helping to provide these; and in half an hour's steady work, they can prepare quite a lot. At the same time, a sufficient quantity of whole dried peas is soaked in cold water over night. The blue pea is the best—least apt to split.

For each lesson or exercise, each pupil receives a certain limited number of sharpened sticks, *(*for the first exercises, it is easy to know exactly how many each pupil will need*)*, and a limited number of peas in a small, shallow paper box. Occasionally a pea will split. These the children must not throw on the floor or lay on the desk, but return to the box. Similarly broken sticks may be put in the box.

*First exercise, (*fig. 1*)*. The teacher directs, following her own directions with a set of sticks and peas, so that those children who feel strange with the new work, may be able to follow by imitation. As she stands before the children, she should be careful to use the left hand when she directs the children to use the right, and vice versa, lest some of the weaker ones become confused by the inversion.

"Take up one pea between the thumb and forefinger of the left hand; take up a stick between the thumb and forefinger of the right hand. Hold the stick in a vertical position; place the lower point of the stick on the top of the pea, right in the middle; push the stick gently and firmly into the pea."

In the kindergarten, much use would be made of this first result. It would be used as a hammer to accompany a blacksmith or carpenter song, as a drum-stick, a pin, a nail, a walking-cane, a pendulum, and a variety of suitable things; or it would be used on the sand-table for much interesting group-work. In the primary class, however, this would probably be out of place. At any rate, in the present exercise, the mathematical relation to be brought out furnish the object of the work, and this forbids any lingering. The teacher, therefore, proceeds:

"With your right hand, take up another stick; hold it in a horizontal position, place the left end against the right side of the pea, right in the middle; push the

stick into the pea."—"What kind of angle do the two sticks form?"

"Now, keeping the two sticks in the same position, place the pea between the thumb and forefinger of the right hand; pick up another stick with the left hand; hold it in a horizontal position; stick it into the left side of the pea, opposite the horizontal stick on the right."—"The two horizontal sticks form one straight line. The vertical stick is perpendicular to the two horizontal sticks. The vertical stick forms two right angles with the horizontal sticks. The two right angles have the same vertex. The two right angles have one vertical stick in common. The two right angles are adjacent to each other." These and similar sentences may be repeated by the children orally, they may be written on the blackboard and on the slates, or—in subsequent exercises—come as answers to appropriate questions.

In conclusion, the sticks may be held in a variety of positions, and copied in these positions on the slate or on paper. If, in these drawing exercises, the resulting figures are arranged symmetrically so that the finished drawing will delight the child as a harmonious whole, so much the better.

In a subsequent exercise the children are first directed to insert the two opposite horizontal sticks, and then to add the vertical stick. This will convince them that the same result may be obtained in a variety of ways, and will shield them against routine. A fourth stick may then be inserted opposite the vertical line, affording four right angles, formed by two straight lines, for study.

For fig. 2, the children may be asked to form two right angles with three sticks. They are then directed to bisect each of these, obtaining four acute angles of 45° for study and drawing. If the vertical stick is removed (fig. 3), the right angle in the middle may be compared with the acute angles and the sides; and the removal of one of the slanting sticks yields an obtuse and an acute angle for comparison. By other additional exercises of a similar character, the genesis of both kinds of oblique angles can be made quite plain.

In figures 4, 5, 6, 7, and 8, a convenient mode of obtaining the square is indicated.

The figures of series (9) show the analysis of the square by means of bisecting lines.

In figures 10, 11 and 12, the cube is reached. Figures 10 and 11 are made separately and then united with figure 12.

The remaining figures (series 13 and 14) are studies of the cube.

Kindergarten Principles Applicable to All Grades of Schools.

It is not so much the present purpose to tell *how* this is to be done, as to prove its possibility. The conclusion is most readily reached, I think, by the consideration of a three-fold principle or law in nature, viz:

1. The principle of the *uniformity* of Nature's laws;

2. The principle of the *universality* of these laws; and

3. The principle of their *integrity*.

The *first* of these involves the generally conceded fact that Nature's laws or operations are *at all times the same in form, or fact*, unless interfered with by some extraneous forces *not* uniform in their operations;

The *second*, that these operations are the same *everywhere in form, or fact*, unless interfered with in like manner; and

Third, that she is "*at all times*," in "*all places*," and under all circumstances consistent with herself, and true to the best interests of her subjects; that she never deceives her intelligent observers; but that she may be relied upon, at "*all times*," in "*all places*," and under "*all circumstances*."

These questions settled, we are prepared to draw our conclusions from them, and to apply them to the case in hand, viz: the application of kindergarten principles and practice to all grades of schools.

It must be admitted, however, "a priori," at this stage of the discussion, that the application of kindergarten principles has been successfully made in the early education and growth of little children, from the age of three and four years, and even younger, to six and seven; and that the results have been uniformly good.

We are not called upon to prove this, since it is concerned in the "a priori" of the premise. But if proof were required in the discussion, it could readily be furnished by reference to the record, and to the testimony given in the Reports* from those places where a fair test has been made of the new method of treatment for children.

But here it may be necessary to distinguish between the true kindergarten and the false; for in this matter, not less than in others, where great merit and eminent abilities exist, there will be counterfeits, or "shams," claiming to do all, and a great

*The more recent Reports from the Bureau of Education, Washington, D. C., and those of the cities of Boston and St. Louis, may be consulted.

deal more than is claimed by the genuine kindergarten. And this, by the way, may not be a bad test, by which to determine their genuineness; for, where it is claimed that the kindergarten is anything more than an exemplification of Nature's simple process for unfolding the natural powers of childhood, it may be set down, I think, as evidence against it. The true kindergarten is eminently natural. In fact, it is Nature itself exemplified in art. Its force and beauty rest in its beautiful simplicity. Its great founder—Froebel himself—claimed this to be its distinguishing characteristic.

But the exceeding modesty of this claim is against it in the eyes of some. It disappoints many who can see only the surface of things. It is so far from what is expected from anything new, in these days, that many, ignorant of its deeper meaning, impatient for present results, and mistaken anxiety to gratify the extravagant expectations of their patrons, have been led into grievous errors, and egregious blundering, and have transcended the legitimate limits of the true kindergarten, and fastened upon it many follies from which it now suffers in the estimation of the more wise and prudent.

It is a question, too, in the minds of some, whether the public kindergarten *can* be kept free from all the illogical and hurtful practices of the public schools. It must be strong, indeed, to overcome them at once. The power of association and of traditional habit is very great.

I think, for the present, while we may not be able to reach the masses quite so soon, with this beautiful philosophy, its purity, at least, will be best preserved in the private kindergarten (if it, indeed, can escape contamination even there), until it acquires sufficient strength to grapple with these errors, and to change not only the fundamental ideas of the profession, but public sentiment itself.

Already these changes have set in. But, as has been intimated, they have been mutual. The kindergarten has lost something, while the public schools may have gained more.

Of course, we do not speak as an oracle in this matter. We are only a novice ourselves. But it does seem that in order to secure the ultimate triumph of these principles, which, by the way, are as old as Creation itself, it is quite as important that they be kept pure, as that they may be made popular. But to throw it upon the public, in the present state of ignorance of its deep simplicity (for that, after all, is the most mysterious thing about it) and its exalted excellence, would be too much like "casting the pearls before swine." It were no marvel, indeed, if its pure garments became soiled by intemperate and extravagant pretension, and trampled in the mire of money-making.

If it can only be guarded against the follies of its *pretended* friends, we think it will soon win its way to the approval of the indifferent, and to the hearts of its avowed enemies. Its chief danger lies in the cupidity of the people.

But to return: Kindergarten principles may also be formulated in the following propositions, and their adaptation to all grades of schools shown from the nature of education itself, and from the necessary condition in which we find it. It must therefore be accepted,

1. That all creations, animate and inanimate, material or immaterial, are benevolent in design, and in harmony with the idea of the supremacy and perpetuity of goodness, the ultimate triumph of right, and the final perfection of human-kind at some point in its future history. This is only stating the law of progress in its logical sequences.

2. That the creation of matter as the temporary abode of spirit, is in harmony with this law, and necessary to its complete fulfilment, else not even our ideas of approximate perfection, not even progress in its most limited scope could be predicated or realized in our present state of existence.

3. That it is the office of spirit, as related to time, to organize matter, to transfuse life into it, to adorn and beautify it, and to fit it for a higher and higher state of existence.

4. That the child is the highest type of material organism, considered merely as such, but subject to the same general laws that govern other forms of organized matter, which laws in themselves are inflexible, and must be *understood* and *obeyed* in order that our ideal progress may become *real*.

5. That the child's organism also inherits the largest share of the spiritual essence, which fact gives him his essential pre-eminence in nature, both organically and psychically.

6. That in this regard he is a child of nature, a child of man, and a child of God, inheriting elements from all these sources, representing in this trinity of being the God-head itself, the Father, Creator, the

origin of nature, or physics: the son, representative man, the manifestation of God, the connection, the unifier, the at-onement (atonement); and lastly, the soul, spirit, sanctifier, the metaphysics of nature, the beyond-nature or physics, the other extreme of creation, the life of all nature, the ultimate of physics: hence, demanding a three-fold development, the physical, intellectual, and spiritual.

7. That these powers—physical, intellectual, and spiritual—are all unfolded gradually, in uniform and definite order, in every well-organized child, varied only as the child-nature varies in different individuals, but always in strict accordance with a law whose *symbol is a circle having unity for its center, and diversity for its circumference;* or, in other words, the Divine Law thus impressed everywhere upon nature, and in all true art.

8. That activity is a necessity imposed everywhere by this law of growth, or development; and that the character and extent of this growth are determined largely by the *kind and quantity of this activity.*

9. That this beautiful circle or symmetry of growth of faculties from the center outward, to where its circumference teaches the world of activities and industries, is marred, distorted, and even destroyed by disturbing this essential balance of activities (which alone give true growth), thereby giving undue activity to some of the faculties, to the neglect of others of equal importance.

10. That the natural restlessness and incessant activity of the child is the true index to his nature, pointing with unerring certainty to this mystical correlation of forces, by which the true education is guided to the logical method for securing symmetrical growth and development.

11. That the child's natural condition when first introduced to his surroundings after birth, unlike that of the young of most animals, is a helpless one, implying and even demanding assistance from these surroundings, in the shape of intelligent guidance, parental or otherwise; that without this he perishes even on the threshold of his worldly existence.

12. That self-activity, so abounding in youth, so essential and helpful, is dangerous without such guidance; that impulse is only a prompter to activity, is not a safe guide, neither is blind unreason or perverted judgment.

13. That the natural surroundings of childhood and youth, wisely adjusted, constitute the proper stimuli to the activity of the powers, of mind, body and soul, and the true sources of early intelligence and the healthy prompters to virtue.

14. That the character of the development of the native powers of childhood is determined, "ceteris paribus," by the manner and extent of the application of these surroundings; or, by the action of external agencies upon the internal receptive and productive energies.

15. That these surroundings, or nature, when properly classified as to its objects, qualities, agencies and inferences, and presented to the child's faculties in the true order of its sequences, becomes science to him, and serves quite as important a purpose in childhood growth, as more formal and advanced science does to the adult.

16. That science or classified knowledge is the natural nourishment for the human faculties, and will, if presented in its logical and chronological order, both displace false ideas, replacing them with the true, and repair the breaches made by falsehood and illogical presentation, fortifying the mind and heart against the encroachments of error from all quarters.

17. That art, or applied science, is a legitimate and essential department of labor, demanding a general diffusion among the people through the schools, and other processes of education, and that when wisely directed, these two grand agencies conspire to the highest development of both mind and body.

18. That the highest moral development is the natural and reflex result of the combined influences of the intellectual and physical forces judiciously applied, and acting in harmony with the divine agencies vouchsafed to man in his fallen and destitute state.

19. That the highest possible purposes of science and art are also subserved in the subordination of the forces of nature, thus harmonizing man's faculties where discord prevails, and thereby producing higher and better types or specimens of human beings, physically, intellectually and morally, through the necessarily increased opportunities and facilities for culture, growth and perfection.

20. That the highest possible art vouchsafed to mortals is, therefore, the *art of teaching;* or, the art of adjusting want as expressed in man, and supplies as expressed in science, art, literature, and religion.

21. That to be a teacher, in the true sense of that word, is *to be a man*, full-orbed

and rounded out in all his faculties; yet possessing in their essential freshness all the characteristics of the child, ripened into manhood, sympathising in all the weaknesses and wants of the wayward, thereby lifting them into power and fulness without destroying their naturalness. Hence, angels could not teach school.

22. That in this way alone can the greatest possible development of science, art, physics, and the greatest possible perfection of man, spirit, metaphysics, be attained; since to produce a harmonious result, or to restore harmony where it has been destroyed, there must be a harmonious action of forces originally in harmony.

II.

THE APPLICATION.

Now since Nature is uniform in her operations, and universal in the application of her laws, in form and in fact, varying only as the conditions and circumstances vary, it follows from the third principle enunciated, viz: her integrity, that whatever is true in form or fact, at any specified time or place, is true at all times and places, varying only as conditions and circumstances vary: that is, whatever is applicable as an educational factor, or force in unfolding the child's faculties, early in life, as in the case of the kindergarten period, is applicable as such at every period of his growth, varied only to suit the changed conditions and circumstances of his educational wants.

Again, self-activity being a condition in early childhood, for the safe guidance of which the kindergarten has made such wise provision; and since the subsequent activity of any faculty at any period is a like condition of its growth, it follows that these two periods of activity must unite somewhere; and since Nature's laws are uniform and universal, having no break anywhere in her grand chain of sequences, it follows also that they must meet somewhere outside the kindergarten period; and since the kindergarten period ends naturally in the primary school period, it follows again that they meet there, renewed, strengthened and intensified for applications to more advanced stages of culture.

By a parity of reasoning, it may be shown that they are continued throughout the entire history of development, and should be provided for in our systems of education, in a manner similar to that in the kindergarten, making the circle of the child's growth everywhere complete.

This we think is a legitimate conclusion, one that will find ready acceptance in the public mind; from which it may be readily inferred that the application of kindergarten principles to the right education of little children must have its counterpart all along the pathway of educational progress, unless, indeed, we adopt the monstrous doctrine that the Allwise Creator has blundered here, in that these occupations so efficacious at one period cease to be so at another, without, at least, begetting a higher class of wants, and thus ushering in a necessity for a higher grade of employments, partaking of the same general characteristics, and suited with equal exactness to the educational wants of that period.

Neither can we suppose that these wants in either case were created in us, either for the express or implied purpose of mocking and tantalizing us. That would vitiate our first "a priori" proposition, setting forth the benevolence of the Creation. And since Nature is uniform, universal, and consistent, it follows she has NOT left this hiatus in the chain of her sequences; but has made abundant provision both for the want and the mode of supply, and has continued them, varying, of course, as the physical, intellectual and spiritual condition of the child varies, shading off even into maturity and old age.

To illustrate: the soft balls in the nursery, or in the kindergarten, when first presented to the child's senses awaken the latent energies of the mind and body through the perceptive faculties, by means of externality: and they also convey a moral impression as to natural infringement of external forces, calling for various degrees of resistance, a moral as well as a physical and intellectual manifestation in early childhood.

These early blendings of the physical and metaphysical forces are necessary conditions in the early awakening of the faculties, and of the greatest posible importance. It is of the utmost moment that these early laws of growth be not vitiated. The little strength acquired in the first experiences of contact serves as capital or stock in trade, to be used in subsequent effort or investment. They should be carefully husbanded; for, the pleasure and profit of these early experiences are scarcely, if ever, excelled in all the history of subsequent life. *Let them be carefully guarded.*

Next, the hard ball or sphere, presenting greater degrees of resistance, with its

simple unisurface, facile movements never-resting propensities, yet resting equally well in all positions on the plane, is the mystery of mysteries to the young immortal, and the fittest type of the active world-life into which the child is just entering. He handles these balls. This hard ball is different from the soft. It has greater resistance. He notes this fact. He strikes it upon the floor. Oh, surprise! It makes a noise! It has a rebound, a resonance. He repeats the experiment. The result follows. Oh, joy! He has discovered a cause. He is pleased with the recurrence. Cause and effect are now taking position in his mind: and similar causes producing similar effects—the second step in reasoning. He has made a tremendous stride in logic. He is pleased, not so much with the noise as with the knowledge—the discovery. The noise may be disagreeable—often is, but the knowledge is pleasant and pays well for the pain of displeasure. Have these things no significance?

Then comes the cube, its opposite in one sense with its flat surfaces, its tendency to rest, the statics of nature or creation, the type of the mineral world, the basis of the two forms of life above it, the vegetable and the animal. The cube, with its shape, angles and edges, all the resistance seemingly gathered into little masked batteries to comprise and assail the youthful energies from these points, and to provoke sterner resistance and deeper thought to unmask, and greater skill to manage them.

Then comes the cylinder in which the beautiful connection between the ball and cube is made, partaking of the properties of both, the reconsideration of the two, the similarity and contrast embodied in one fittest type of the vegetable world, the link joining the animal (the ball) and the mineral (the cube); the one-sided life that grows upon the base, the mineral, and feeds and sustains the type of spiritual essence, the universal life—the sphere above it. Its base resting upon the cube, the statics of nature, it bears in its arms—the upper surface—the kinetics of nature, the metaphysics of physics. It is the representative of both statics and motion. Resting its static face upon the cube—death—that sustains all life, its kinetic face is based to the many-sided mystical—the ball or sphere.

It has also another beautiful symbolic meaning. We see in it the principle of similarity and contrast, a similarity in the midst of differences, the second step in all thinking; for the whole process may be formulated thus: 1st, a consciousness of differences; and 2d, a consciousness of a similarity in the midst of differences. "Here," then, "is wisdom." "Let him that hath understanding" study the mystery of this correlation.

Then this beautiful correlation is followed in the order of presentation, by the prism, a slightly varied form, and others, still on and on, and on through this labyrinth of form, size, color, and relations, all bustling with interest, and invitation to *handle* and *know*. Every one of these says to the child, "Here, handle me; see me; hear me; aye, taste and smell me—*know* me; for I came directly from the Maker's hand, that I might help you into higher thought, and holier relationship with the great Architect of Nature."

And yet I have seen poor, helpless teachers stand stupefied, as it were, amidst this abundance of God's provision for the hungry chilren, book in hand, trying to teach, yet unable to break one single crumb of real, available knowledge to the starving multitude. Oh, books! books! books!—the weakest things in this world from which to teach little children, when God has written so much everywhere else, and so little in the books! Man made the books; and he has not made them well; they imitate nature so abominably. God made nature and things, and *he has made them well;* and therefore children love them. They love to see, to hear, to handle them. But how many of us have been flogged for handling, for meddling, for even smelling and tasting! But these hands were made to handle; and we hamper God's freemen when we practically tie them up to educate them.

"*Boys not admitted here,*" was written over the door of an old machine shop in southern Ohio, where I was called to conduct a teachers' institute. My opening lesson was devoted to that sign. It was a good test. It said more than was intended. It was a commentary upon the popular mode of treatment of little children.

(*To be continued.*)

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DIRECTIONS.

"When taken, to be well shaken."

1. First of all, and fundamental to all, remember that the grit material in this Slating is heavy, and sinks to the bottom of the liquid. Therefore throughout the entire process of applying it, **the Slating must be kept Thoroughly Stirred Up.** Attention to this direction will ensure an even coat, which is absolutely essential. *Shake before opening, and then stir constantly with a stick while applying.*

THE SURFACE TO BE SLATED.

2. *When applied to Plaster Wall.*—In general, make the surface as smooth as possible. Fill any holes or cracks with plaster-of-paris, wet with water to the thickness of putty. If the wall is rough, rub it over with sand-paper. If it has never been painted, a coat of glue sizing may be put on underneath the Slating.

3. *When applied to Wooden Boards.*—See that the surface of the Board is smooth and continuous, filling cracks, where practicable, with plaster-of-paris, as directed for Plaster Walls. It will be found economical first to cover the Board with Manilla Paper, as directed below.

4. *When applied to Manilla Paper.*—The best Blackboards known at the present day are slated upon Manilla Paper, first pasted with flour paste upon

the wall or board like ordinary wall-paper. Ordinary heavy Manilla Paper is used. It is cut from rolls, and is usually 36, 48 or 54 inches wide. If the wall is new and free from whitewash, it needs no preparation. If, however, whitewash is on the walls, it must be removed. The paper, having been cut to the required size, is brushed with water, until it has no tendency to curl. Then brush thoroughly and evenly with good flour paste, and apply while every portion of the paste is still wet. The application of a small wooden roller will improve the evenness. Secure the edges with a neat moulding. See that the paper is thoroughly dry before applying the Slating. A coat of glue sizing underneath the Slating is recommended.

TO APPLY THE SLATING.

5. STIR THOROUGHLY. Never forget this.

6. *The Brush.*—To apply, use a flat brush, from 3 to 15 inches wide—the wider the better.

7. *How to Put On the Coats.*—Brush lightly and rapidly, in as few strokes as possible, drawing the brush the entire breadth of the Board, that the Slating may dry evenly.

One Coat will often be found sufficient, when applied to an old Board.

A Second Coat is usually desirable, and may be applied immediately after the first, though it is better that 12 hours intervene.

A Third Coat is seldom required or desirable. It is better to apply a new coat at the beginning of each term, than to cover too thickly at the first application.

8. *When finished and dry,* the Board should be lightly sand-papered. *This may be done best with paper covered with the Slating itself,* as no other sand-paper will endure against the peculiar surface of this Blackboard.

9. Any remaining Slating may be returned to the can and carefully closed. When used, if, after being thoroughly stirred up, the Slating appears too thick, add *pure alcohol* till the Slating is thin enough to flow freely.

HOW TO USE THE BOARD.

10. *Any kind of Crayon* may be used upon this Blackboard, especially the Alpha or Steatite, which are so indistinct upon an ordinary Board. But the great advantage of the Board is that the SLATE PENCIL may be used upon it freely, thus doing away entirely with the chalk-dust which every year costs a thousand lives of children in American school-rooms. For this purpose the best pencils are A. W. Faber's, imported by us directly from Germany. These are free from grit, and may be used either from a point, or from an entire end surface, making a mark as broad as well as white as ordinary crayon. We sell these pencils at 75 cts. a box of 100.

11. *Any Eraser* may be used, but the best are those which have a series of edges, instead of one flat surface. We find the best satisfaction got from Andrews' ($1.50 a dozen), though some prefer the Postal ($1.25 a dozen), or the Novelty Listing ($1.50 a dozen). We can supply any of them.

12. *A Wet Cloth* should be occasionally applied, thus bringing back the color of the surface to a dead black.

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